

# 2010-10-26 Tuesday Morning Notes

Tuesday, October 26, 2010  
6:00 AM

## On-call

- Monday and Tuesday: Stan Johnson
- Wednesday and Thursday: Vladimir Nagaslaev
- Friday: Keith Gollwitzer

## Stacking

- <stacking rate> = 26.2mA/hr
- <production>=23.2 pbars/Mp
- <POT>=8.48 Tp

## Transfers

- Unstacked 467E10 in 56 transfers over 18 sets
- <overall efficiency>= 96.7%

## Requests

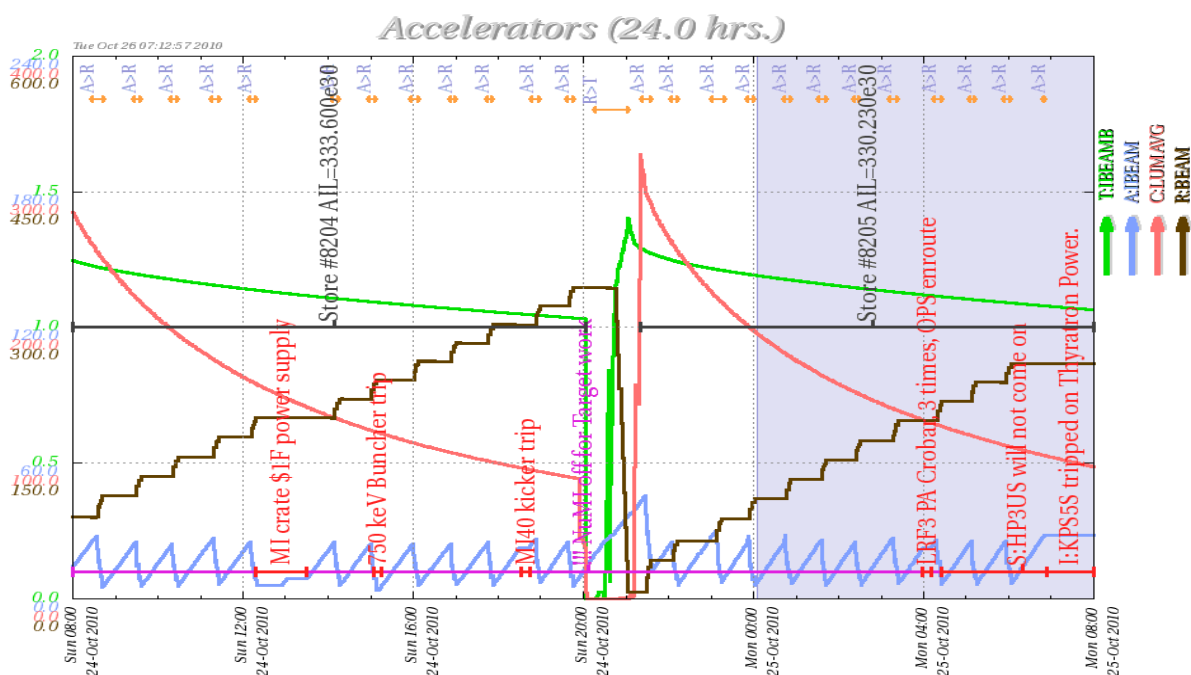
- Cycle time Studies
- Move shot setup timelines to 2.6 seconds.
- Target station shielding block work ([http://www-bd.fnal.gov/cgi-worklist/worklist\\_form.pl?id=12568](http://www-bd.fnal.gov/cgi-worklist/worklist_form.pl?id=12568))
  - Most of the concrete shielding blocks for JASMIN have been installed. The final keystone block would not fit in the available remaining space. The South wall of the upper vault needs to be moved by about 3' in order to properly align JASMIN shielding blocks with target vault components.
  - Move South shield wall, reposition JASMIN shielding blocks, and install keystone block.
  - 10 hours at 6am tomorrow morning. - half of 10 hours is crane running.
  - Move South Shielding wall so can get keystone shield block.
- AP1 Vacuum window install
  - Install the temporary vacuum window in the downstream AP1 line between PQ8B and PV8T.
  - The spool is about 9mrem/hr on contact, going to 20mrem/hr where we switch from round to rectangular (2" wide, 4" tall) beam pipe before VT108, going up to 50mrem/hr in the coils of VT108
  - Have to remove blocks to get the roughing pump and leak checker.
  - PreVault would be unsecure
  - Need 40 minutes to unstack 3' worth of blocks
  - Within an hour can have everything down
  - 1.5 hours to have everything buttoned back up.
  - Normally start at 8am.

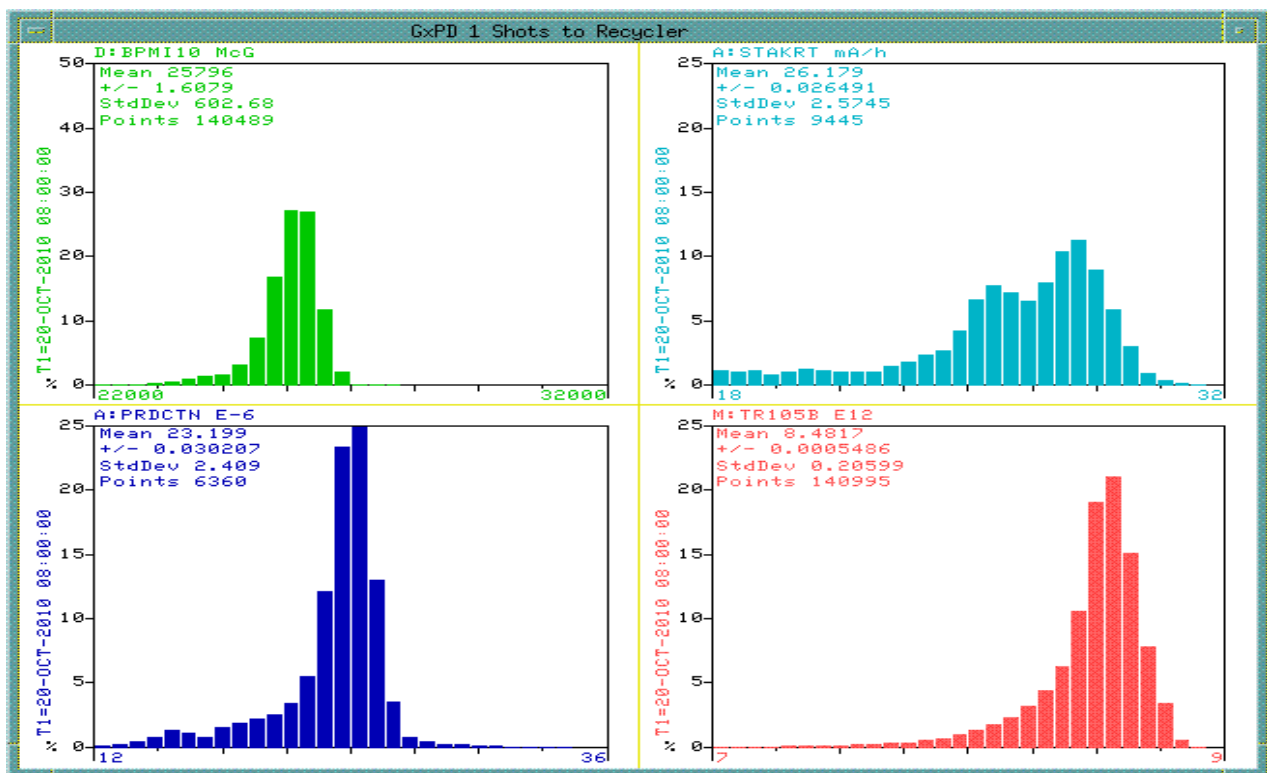
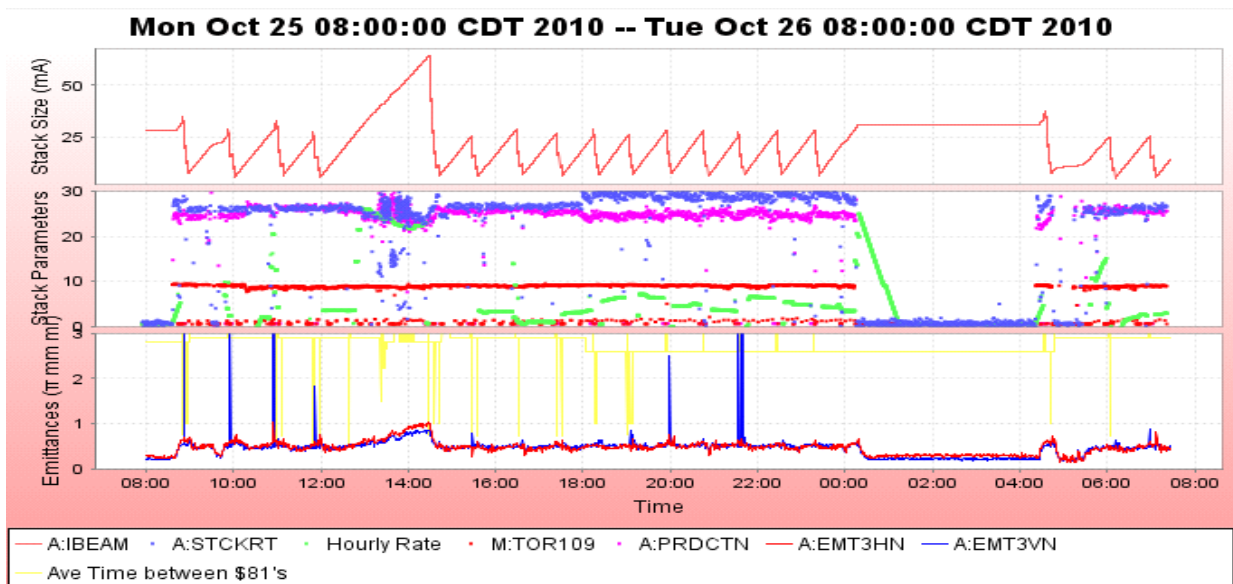
## Numbers

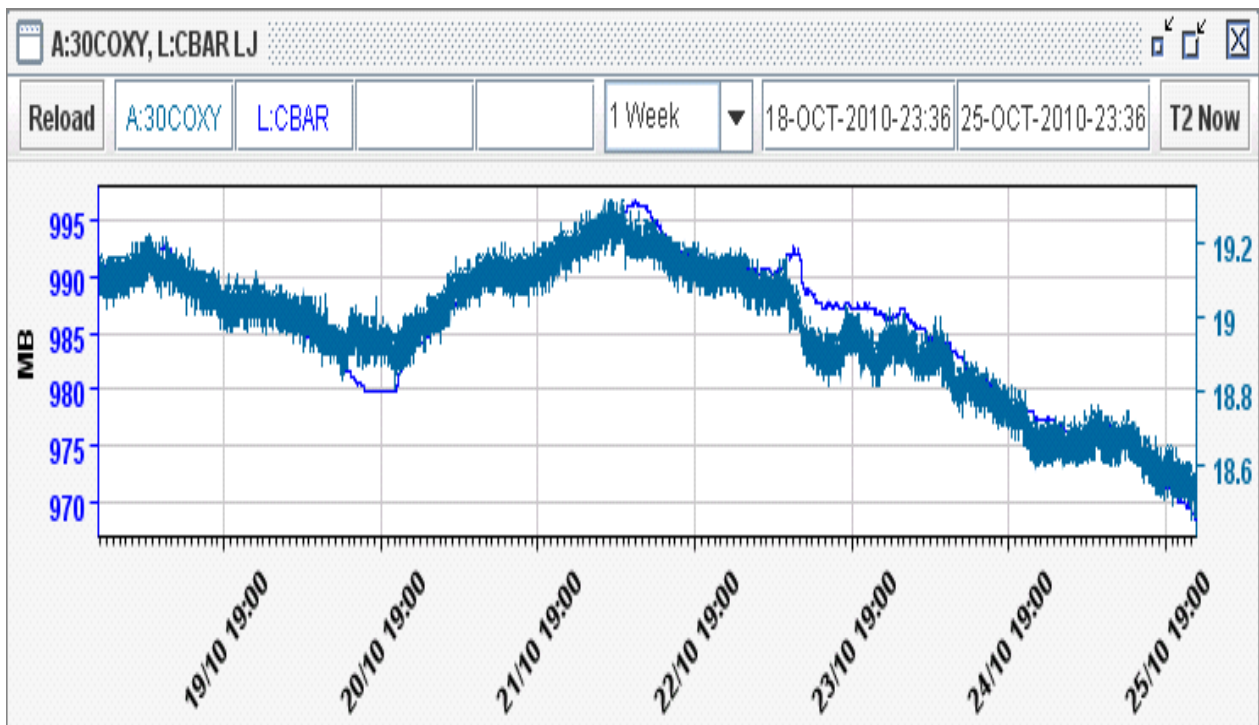
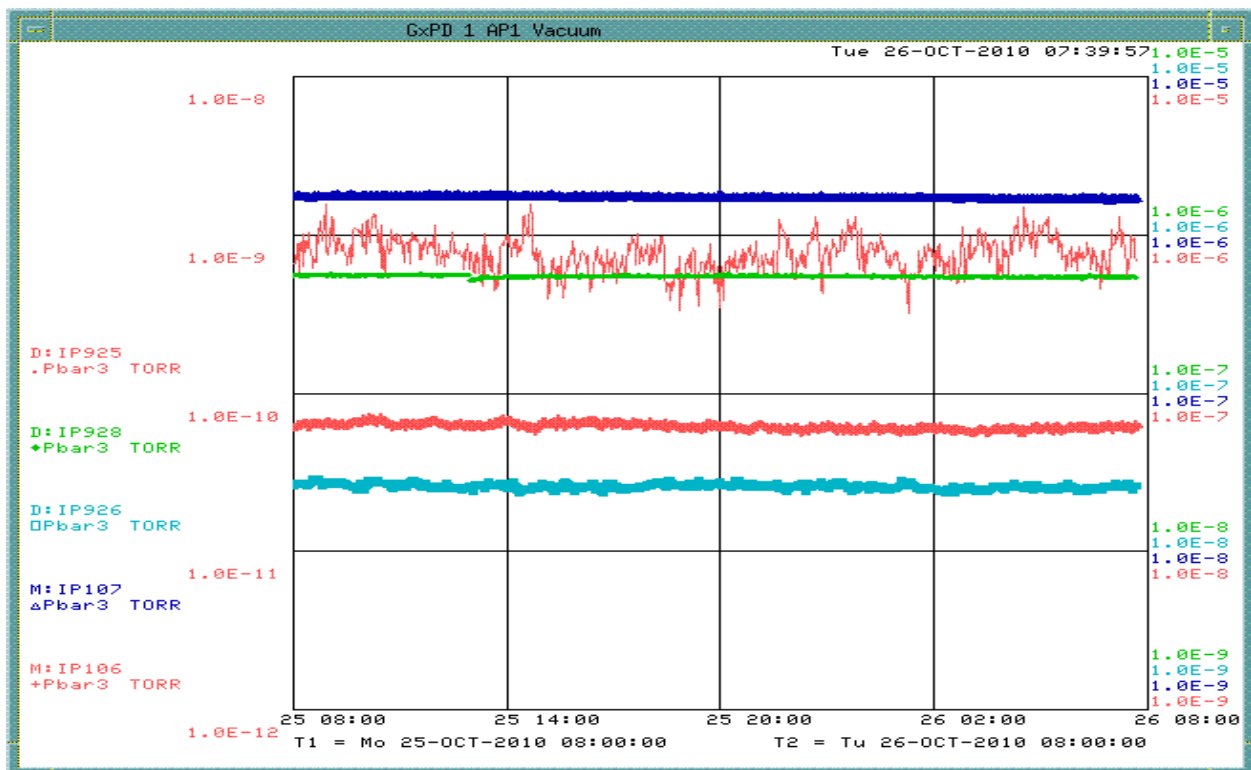
- Stacking
  - Pbars stacked: 456.88 E10
  - Time stacking: 18.08 Hr
  - Average stacking rate: 25.27 E10/Hr
- Uptime
  - Number of pulses while in stacking mode: 22939

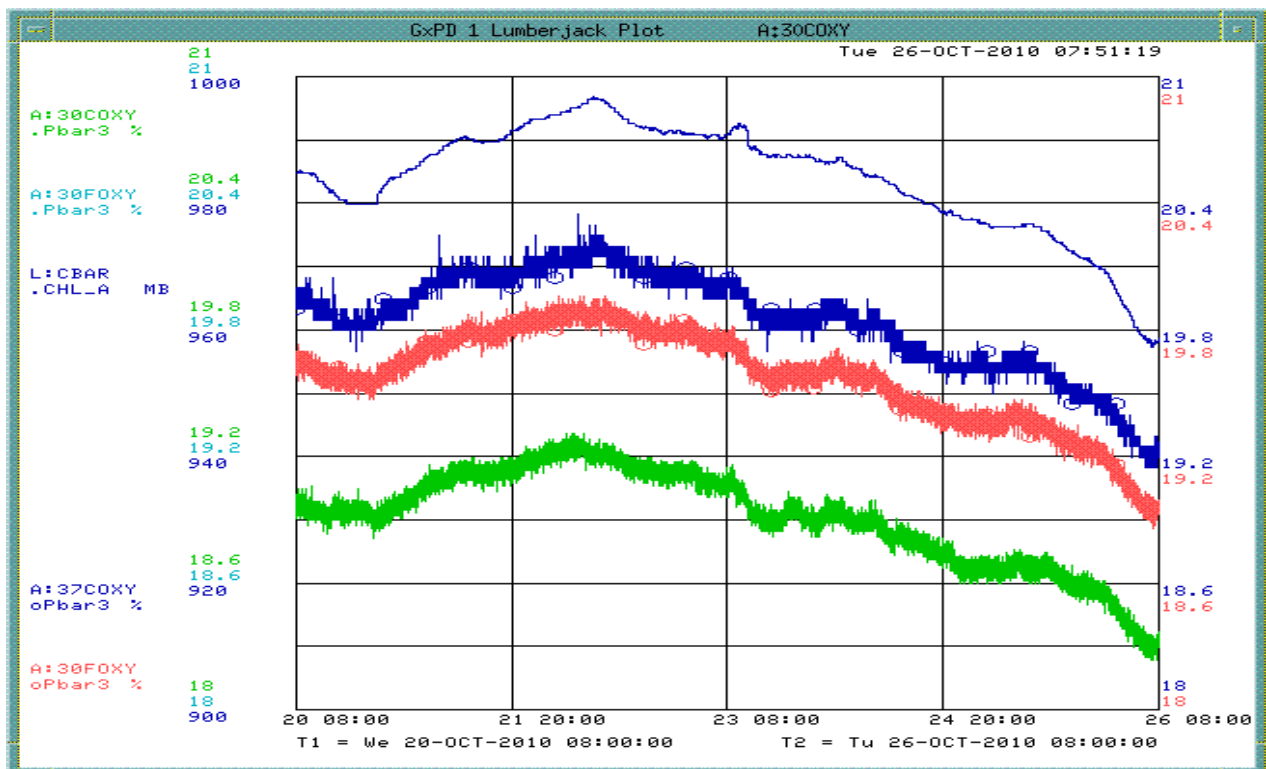
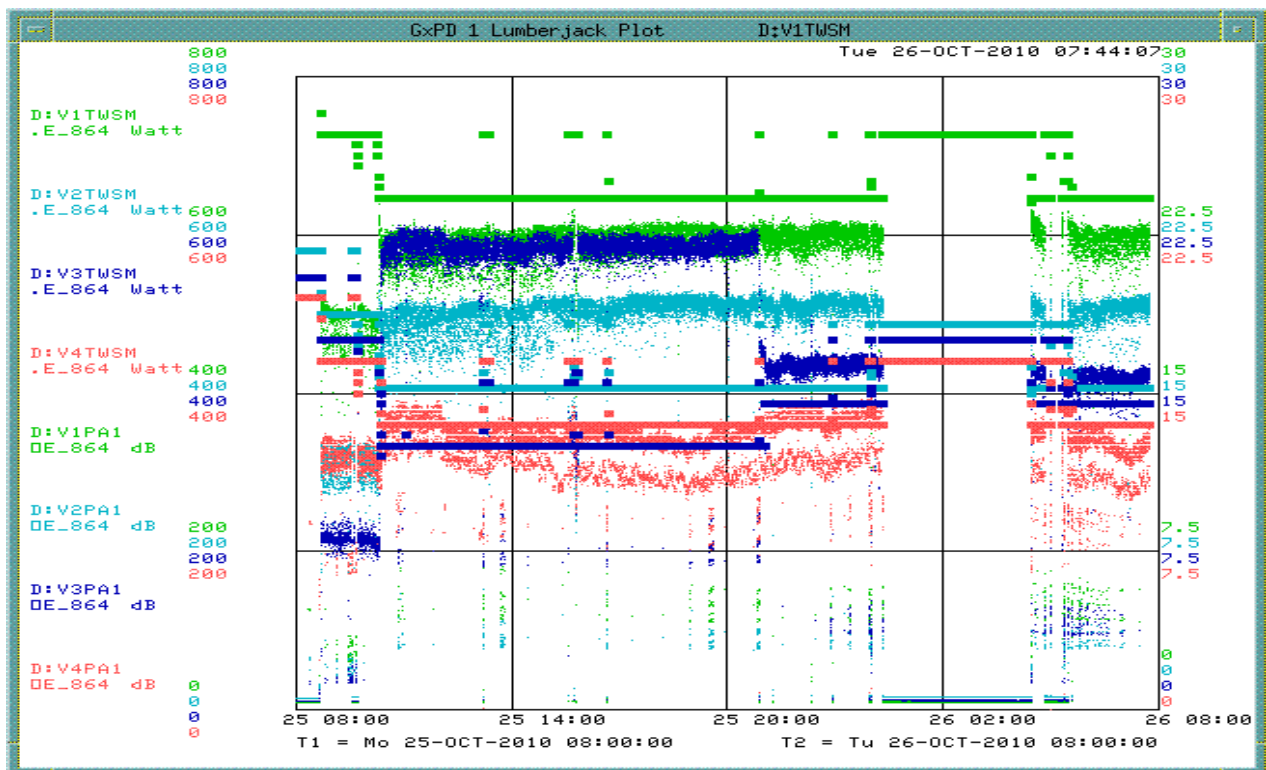
- Number of pulses with beam: 21507
  - Fraction of up pulses was: 93.76%
- The uptime's effect on the stacking numbers
  - Corrected time stacking: 16.95 Hr
  - Possible average stacking rate: 26.95 E10/Hr
  - Could have stacked: 487.30 E10/Hr
- Recycler Transfers
  - Pbars sent to the Recycler: 455.23 E10
  - Number of transfers : 54
  - Number of transfer sets: 18
  - Average Number of transfer per set: 3.00
  - Time taken to shoot including reverse proton tuneup: 00.19 Hr
  - Transfer efficiency: 96.89%
- Other Info
  - Average POT : 8.40 E12
  - Average production: 25.30 pbars/E6 protons

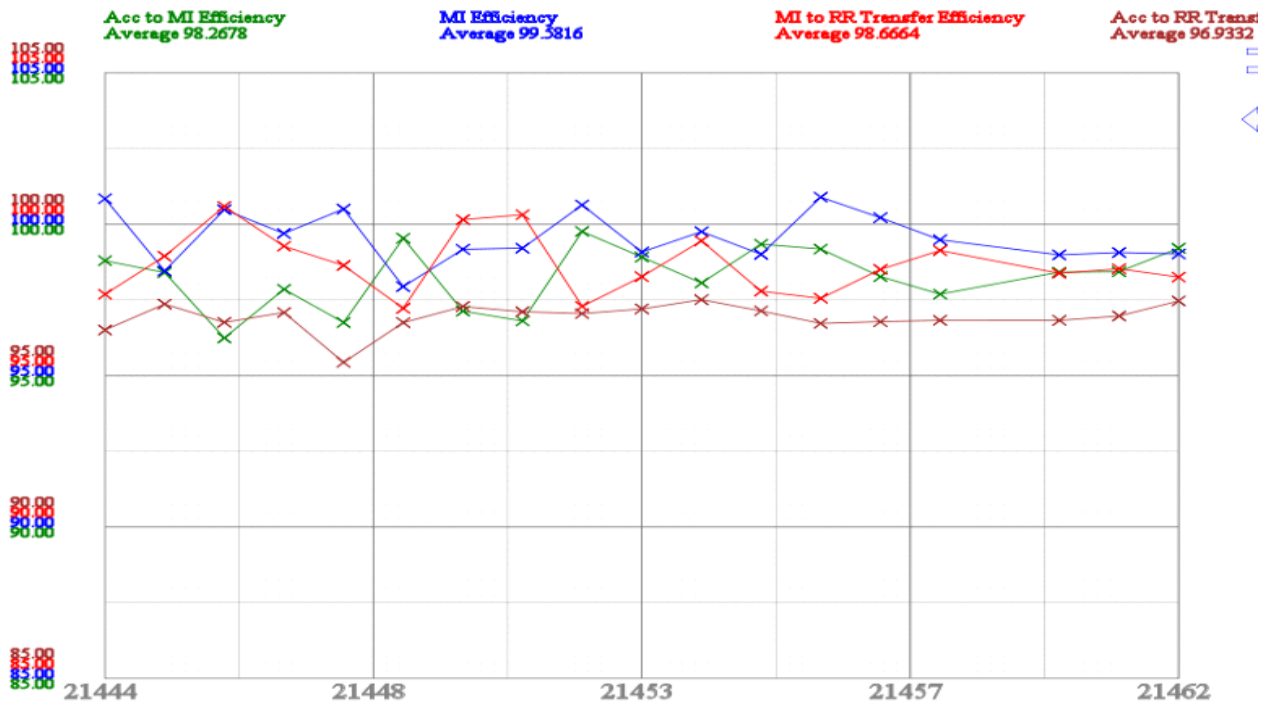
## Plots











Column 1 Number _0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Time	Column 21 Number _20_A-I BEAMB sampled on \$91 (A:BEA M7), E10	Column 22 Number _21_A-I BEAMB sampled on \$94 (A:BEA M9), E10	Unstacked (mA)	Column 23 Number _22_R: BEAMS (R:BEA ME0[0]) pre fer E10	Column 24 Number _23_R: BEAM (R:BEA ME0[1]) post fer, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Acc to MI * Acc to MI2 Efficiency	Trans fers	Sets	Column 5 Number _4_Acc Horizontal Emittanc e	Column 6 Number _5_Acc Vertical Emittanc e	Column 8 Number _7_Acc Longitu dinal Emittanc e	
	Totals =>			467.96			452.39	96.67%	98.06%	97.66%	95.76%	56	18	5.0865	4.7442	1.9342	
	Daily Average =>			467.96			452.39					56	18				
21462	Tuesday, October 26, 2010	6:59	25.87	5.77	22.69	332.41	354.32	22.09	97.35%	99.32%	97.91%	97.24%	3	1	5.258	4.603	1.95
21461	Tuesday, October 26, 2010	6:03	25.34	5.44	22.47	311.42	333.02	21.79	96.98%	98.90%	97.92%	96.85%	3	1	4.243	4.362	1.925
21460	Tuesday, October 26, 2010	4:36	35.24	7.61	29.92	283.46	312.24	28.95	96.76%	98.28%	97.44%	95.76%	3	1	5.442	4.709	1.872
21458	Monday, October 25, 2010	23:17	28.08	6.73	23.56	262.88	285.53	22.80	96.81%	97.62%	97.13%	94.82%	3	1	4.919	4.777	1.912
21457	Monday, October 25, 2010	22:26	28.14	7.44	23.22	240.88	263.25	22.49	96.85%	97.92%	98.15%	96.11%	3	1	4.721	4.684	1.958
21456	Monday, October 25, 2010	21:35	26.32	6.83	21.98	220.07	241.22	21.28	96.82%	99.04%	99.89%	98.93%	3	1	4.539	4.796	1.974
21455	Monday, October 25, 2010	20:45	28.26	6.74	23.68	197.51	220.38	23.01	97.17%	99.04%	98.01%	97.07%	3	1	5.12	4.638	1.909
21454	Monday, October 25, 2010	19:55	28.48	7.44	23.49	175.03	197.79	22.87	97.34%	98.14%	98.17%	96.34%	3	1	4.989	4.721	1.958
21453	Monday, October 25, 2010	19:02	26.07	6.98	21.59	154.41	175.27	20.97	97.13%	98.87%	98.18%	97.06%	3	1	4.491	4.862	2.006
21452	Monday, October 25, 2010	18:15	26.56	7.03	22.02	133.29	154.57	21.37	97.03%	99.49%	99.83%	99.32%	3	1	4.706	4.758	1.96
21451	Monday, October 25, 2010	17:24	27.22	6.59	23.30	110.98	133.48	22.60	97.00%	96.80%	96.39%	93.31%	3	1	5.303	4.749	1.928
21450	Monday, October 25, 2010	16:29	29.03	6.88	24.79	87.21	111.15	24.08	97.12%	97.12%	96.30%	93.52%	3	1	4.963	4.441	1.941
21449	Monday, October 25, 2010	15:28	26.01	6.17	22.53	65.64	87.35	21.80	96.77%	99.14%	97.24%	96.41%	3	1	4.51	4.462	1.929
21448	Monday, October 25, 2010	14:29	64.40	6.28	62.82	6.99	65.85	59.52	94.75%	96.39%	96.65%	93.16%	5	1	6.601	5.673	1.832
21447	Monday, October 25, 2010	11:52	25.46	5.73	22.34	332.13	353.68	21.70	97.13%	98.18%	97.33%	95.56%	3	1	5.042	4.398	1.939
21446	Monday, October 25, 2010	11:01	30.54	6.74	26.43	307.36	332.72	25.54	96.66%	96.92%	96.81%	93.82%	3	1	5.516	4.811	1.95
21445	Monday, October 25, 2010	9:55	27.13	6.10	23.61	285.22	307.99	22.99	97.39%	98.20%	97.15%	95.40%	3	1	5.407	4.878	1.939
21444	Monday, October 25, 2010	8:52	32.91	7.93	27.52	259.45	285.78	26.53	96.40%	98.77%	99.28%	98.06%	3	1	5.787	5.073	1.934